

REMARKS

Reconsideration and allowance of this application are respectfully requested. Claims 2, 8, 14, 21-32, 34-35 and 37-38 are cancelled. Claims 1, 3-7, 9-13, 15-20, 33, 36 and 39-41 remain in this application and, as amended herein, are submitted for the Examiner's reconsideration.

Applicants express appreciation to Examiner Rahmjoo for the telephone conference held on November 29, 2006 regarding the rejection under 35 U.S.C. § 101 set out below.

In the Office Action, the Examiner rejected claims 1, 3-7, 9-13, 15-20, 33, 36 and 39-41 under 35 U.S.C. § 101 as being directed to non-statutory subject matter and under 35 U.S.C. § 112, first paragraph. Applicant submits that the claims are in full compliance with the requirements of 35 U.S.C. § 101 and with the requirements of 35 U.S.C. § 112, first paragraph.

The Examiner acknowledges that "applicant claims steps of extracting, rendering, anti-aliasing, and overwriting an image" but contends that "[s]aid steps are merely descriptive material without reaching a final result as being useful, concrete and tangible." (Emphasis added.) Incredibly, the Examiner is asserting that the claimed operations on a three-dimensional image or a portion thereof are "merely descriptive material" and that the attained final result of reducing aliasing in a rendered image is not useful, concrete and tangible.

Claim 1, for example, defines an image rendering apparatus and calls for:

extracting means for determining that a given line part of an object depicted in a three-dimensional image is a visually important line part, the visually important line part being a contour line of the depicted object or a contour candidate line of the depicted object, and for extracting only data

representing the visually important line part from data representing the three-dimensional image;

image rendering means for rendering the three-dimensional image to generate respective pluralities of first values for each pixel in the three-dimensional image whereby a given one of the pluralities of first values is associated with a specific one of the pixels in the three-dimensional image, the rendered image including a portion in which aliasing occurs;

antialiasing means for antialiasing only the extracted data to form an antialiased image portion associated with the visually important line part by generating respective pluralities of second values for each pixel in the visually important line part whereby a given one of the pluralities of second values is associated with a specific one of the pixels in the visually important line part; and

overwriting means for overwriting by using the pluralities of second values associated with each pixel of the visually important line part to replace the pluralities of first values associated with each pixel of the visually important line part thereby at least reducing the aliasing of the portion of the rendered image. (Emphasis added.)

Clearly, the claim defines operations which transform a three-dimensional image into a rendered image in which the aliasing of a portion thereof is at least reduced. Moreover, the final result achieved, namely, the rendered image in which the aliasing of a portion thereof is at least reduced, is clearly useful, concrete and tangible. (See "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility", pg.2 11.1-4 and pgs.20-23.) Hence, claim 1 and its dependent claims are directed to statutory subject matter. Similarly, claims 7, 13, 19, 20, 33 and 36, which include limitations similar to those set out in claim 1, and their dependent claims are likewise each directed to statutory subject matter.

During the telephone conference with the Examiner, the Examiner referred to pages 52-54 of the Interim Guidelines.

However, the relied-on sections of the Interim Guidelines are not pertinent to the claimed invention for the reasons set out above. Claims 13, 19 and 20 have also been amended to more clearly show this distinction.

Accordingly, Applicants respectfully request the withdrawal of the rejections under 35 U.S.C. §§ 101 and 112, first paragraph.

Turning now to the art rejection, the Examiner rejected claims 1, 3-7, 9-13, 15-20, 33, 36, and 39-41 under 35 U.S.C. § 103(a) as being unpatentable over Naoi (U.S. Patent No. 6,683,617) in view of Ruehle (U.S. Patent No. 5,940,080). Applicants submit that the claims are patentably distinguishable over the cited references.

The Examiner acknowledges that Naoi does not teach the extracting means of claim 1 but contends that Ruehle does and refers to column 11, lines 20-23 and to claim 3 of Ruehle. The relied-on sections of Ruehle merely describe that "a supersampling/reduction or an outline extraction method is used" to create a "text alpha channel mask" that is used when anti-aliasing text. Though Ruehle elsewhere describes using the supersampling/reduction or outline extraction method to obtain the values of outline pixels, the alpha channel mask always contains both the intensity levels of the pixels in the boundary pixels of the text and the intensity levels of the inner pixels of the text. (See elements 604 and 606 of Fig.6, and col.3 11.10-16 and 33-35.) Because a mask that contains only the intensity levels of the boundary pixels is not suitable for Ruehle's anti-aliasing method, Ruehle cannot disclose or suggest extracting only data representing the outline pixels from data representing the entire text, and Ruehle cannot disclose or suggest anti-aliasing only such extracted data. Hence, Ruehle does not disclose or suggest extracting only data representing the visually important line part from data representing an image

and does not disclose or suggest antialiasing only the extracted data.

Moreover, Ruehle is only concerned with anti-aliasing two-dimensional text and is not at all concerned with operations carried out on a three-dimensional image. Therefore, Ruehle neither discloses nor suggests determining that a given line part of an object depicted in a three-dimensional image is a visually important line part, and Ruehle neither discloses nor suggests extracting only data representing the visually important line part from data representing the three-dimensional image.

The cited references neither disclose nor suggest:

extracting means for determining that a given line part of an object depicted in a three-dimensional image is a visually important line part, the visually important line part being a contour line of the depicted object or a contour candidate line of the depicted object, and for extracting only data representing the visually important line part from data representing the three-dimensional image; (emphasis added)

as set out in claim 1.

The Examiner also acknowledges that Naoi does not teach the claimed overwriting means but asserts that Ruehle teaches this feature and cites Fig. 7 and column 4, lines 30-45. The cited sections of Ruehle, however, describe superimposing anti-aliased text onto a destination image 706, namely, Ruehle describes superimposing the anti-aliased text mask onto another image. The relied-on sections of Ruehle do not disclose or suggest using an anti-aliased mask of the text to replace the aliased pixels of that text. Therefore, Ruehle neither discloses nor suggests overwriting by using the pluralities of second values associated with each pixel of the visually important line part to replace the pluralities of first values associated with each pixel of the visually important line part.

The cited references thus neither disclose nor suggest:

overwriting means for overwriting by using the pluralities of second values associated with each pixel of the visually important line part to replace the pluralities of first values associated with each pixel of the visually important line part thereby at least reducing the aliasing of the portion of the rendered image.

as recited in claim 1.

It follows that none of the relied-on sections of the cited references, whether taken alone or in combination, discloses or suggests the apparatus defined in claim 1, and therefore claim 1 is patentably distinct and unobvious over the cited art.

Independent claims 7, 13, 19, 20, 33 and 36 each include limitations similar to those set out in claim 1. Therefore, claims 7, 13, 19, 20, 33 and 36 are each distinguishable over the cited references for at least the same reasons.

Claims 3-6 depend from claim 1, claims 9-12 depend from claim 7, claims 15-18 depend from claim 13, claim 39 depends from claim 20, claim 40 depends from claim 33, and claim 41 depends from claim 36. Each of claims 9-12, 15-18, and 39-41 is therefore distinguishable over the cited art for at least the same reasons as its parent claim.

Accordingly, the withdrawal of the rejection under 35 U.S.C. § 103 is respectfully requested.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone applicant's attorney at

Application No.: 09/935,891

Docket No.: SCEI 3.0-081

(908) 654-5000 in order to overcome any additional objections which the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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Respectfully submitted,



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